VETV

Veterans-TV, Inc. | Grass Valley Campus

NewTek TriCaster® Cirriculum

A 5-week course that teaches the basics of Camera Composition, Lighting, Audio & Microphones, Graphics & Titling, Switcher Operation, Stage Managing, and complete proficiency with the NewTek TriCaster.

Most technical information learned in this course is generic and applies to most other manufacturers equipment.

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INTRODUCTION

Live television is a daily reality; significant news and events are broadcast or webcast as they happen on network, cable, and Internet outlets.

The NewTek TriCaster® portable live production system brings the power and immediacy of live television to you. Learn everything from sporting events, plays, concerts and ceremonies. Learn valuable technological and multi-disciplinary skills.

STUDENT BENEFITS INCLUDE

• Student engagement

• Knowledge retention

• Student motivation

• Team development and collaboration LEARNING STYLES

• Visual learners

• Kinesthetic learners

• Easy-to-use technology

• Adheres to national technological standards

Lesson 1 – Week 1, Days 1, 2, 3, 4, 5

LIGHTS, CAMERA, ACTION

Camera Shots and Angles. In this lesson, you will learn the different kinds of camera angles used in broadcasting, and how to use these angles effectively. Students will also learn the terms and definitions of each shot.

Camera Shots, Angles and Terms:

Long Shot
A long shot, also referred to as an establishing shot, is used to show a large view of something. Often used to show location, buildings or a large group of people, long shots are what to use to establish a setting.

Medium Shot
A medium shot is used to focus the audience's attention by cutting out unwanted people, objects or background and focusing on the subject. Two-Shot A two-shot is used when there are co-anchors on the news desk and the camera zooms back wide enough to include each anchor in the frame.

Close-Up Shot
A close-up shot is used to isolate what is important in the shot or enlarge something in order to focus the audience's attention.

Extreme Close-Up Shot
An extreme-close up shot is used to further isolate or enlarge an object in order to focus the audience's attention.

Over-the-Shoulder Shot
The over-the-shoulder shot is used to show a close-up of the news anchor on one side of the frame and a text or video window on the other side, over the anchor's shoulder.

Subjective Views
A subjective view is used to create the effect that the anchor is speaking directly with the audience by having the anchor speak into the camera.

Objective View
An objective view is when the camera is not addressed directly by those in the shot in order to make the audience feel like an observer and not a participant. This shot is often used during an interview.

Eye-Level View
An eye level view is when the camera is set at eye level with the anchor in the shot.

High-Angle View
A high-angle view involves the camera being placed higher than eye-level, looking down at the talent.

Low-Angle View
This shot involves the camera looking up towards the talent, giving the audience the impression that the talent is in a position of power.

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Composition:

Rule of Thirds

The Rule of Thirds states that an image can be divided into nine equal parts by dividing it with two equally spaced horizontal lines and two equally- spaced vertical lines.

The four points formed by the intersections of these lines are where the human eye directs its attention to. To create video with good composition, place the most important part of the picture at one of the four points.

Headroom

Headroom refers to the space above the talent's head. If there is too much or too little headroom, the talent will look unbalanced, cramped or both.

Lead Room

Lead room allows space for someone or something to move with in the shot.

Background

The backdrop behind the talent can either enhance or detract from the shot. It is important to take the background into consideration as the shot is framed to make sure that no object in the background looks as though it is intruding upon the image in focus. For example, a pole or a sign in the background could look as though it is protruding from the head of the talent if the shot is not framed properly.

Foreground

The same principle for background can be used for foreground. Always be aware of what is in front of the talent.

Balance

While you want to provide lead room in the frame in the direction that someone is facing, if you provide too much room, the shot will lose balance. If the subject is facing right, you should place them just to the left of center.

Pan

A pan is when you rotate the camera on the horizontally.

Zoom

To zoom is to change the lens to a narrow-angle of view (zoom-in, or close-up), or to a wide-angle of view (zoom-out).

Slow Zoom

While the subject is speaking, very slowly zooming in adds impact to what is being said. This is a great technique to use when an anchor is closing a report.

Tilt
Tilt is when you rotate the camera up or down.

Truck
Truck is when you move the camera laterally using a camera dolly or pedestal.

Dolly
A dolly provides support for the camera, which allows the camera to move in all directions, such as a tripod on wheels. To move the camera toward something is called "dolly in," moving the camera away from something is called "dolly out."

CAMERA MOVEMENT GUIDE
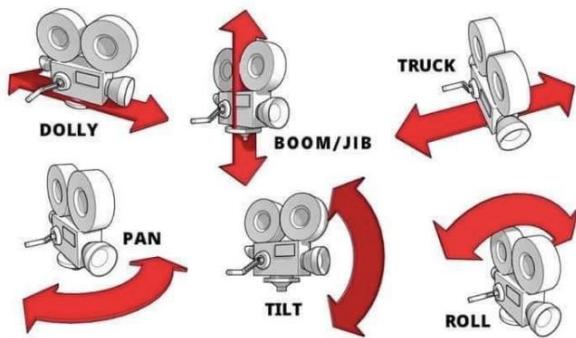
CLIENT CAMERA MOVEMENT GUIDE
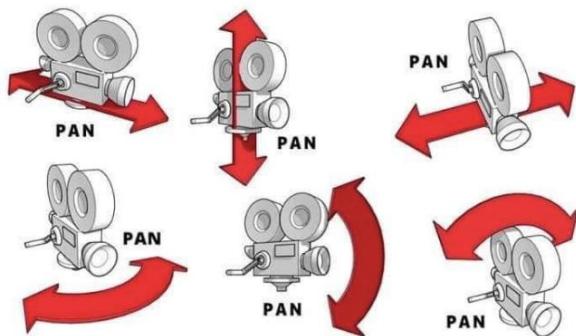
SCHEDULE

Day One
Compelling stories begin with conflict or tension. What other aspects can impact the story. How you think camera angles will impact a story. Different shots and angles can determine the "feel" of a story. For example, using a low-angle shot can make a person appear powerful while a high-angle shot can establish a feeling of less-importance.

You must always take into consideration how you are shooting the talent or scene.

Day Two
Record several news stories for students to watch that use different shots and angles. How do the shots and angles establish the feel of the story. Do you think the story would have a different feel if the shots and angles were done differently.

Day Two
We will hook up a camera to TriCaster® and ask for volunteers. Learn the definition of each shot, demonstrating how to achieve the shot. Also get examples of dolly, pan, tilt and zoom and

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how each could be used in a story. We introduce TriCaster® camera switching abilities. We demonstrate how the ability to switch cameras allows you to change camera angles quickly and effectively, adding depth to your production.

Day Three

We will Informally throw out different shots from the handout to see if you know their definition. We will show part of a news broadcast featuring several on-location stories. We will then ask you what shot is being used and how it affects the story. This may over-lap into day four, depending on how in-depth you want to get.

Day Three

We will divide you into groups (this will be the same group that will be doing the activity) and have you set up each shot. If there are only one or two cameras available, do the guided practice together.

Days Three and Four

Students will split up in groups of three to five and record (two minutes or less) a short interview using four different shots that we provide. The group(s) are to use the shots in the order in which they are provided. The interviewer and interviewee will be two students from the group. The interview will be about what their favorite color is and why. Ask students for examples of a broadcast where camera angles played a part in the story.

Day Five

After the activity is completed, all the groups present their unedited video to the class and point out which shots were used. Ask what they would have done differently if you had been given a choice of shots to use. How did the shots you used impact the feel of the story?

Lesson 2 – Week 2 – Days 6, 7, 8

LIGHTING A SET

In this lesson you will learn how to effectively light a set, as well as use natural light and single camera lighting. You will also learn the different types of lighting, including three-point lighting, which will be utilized on the news set.

Three-point Lighting

Three-point lighting is a combination of key, fill and hair lights on the talent. The fill light should be about half the intensity of the key light, to emphasize facial dimension. Students will learn how to set-up lighting and use different lighting techniques while on the news set and on location shooting. You will also learn the different kinds of "moods" lighting can create.

Key Light
A key light is the main light in front of and to one side of the talent.

Fill Light
A fill light is a less bright light off to the opposite side of the key light.

Hair Light/Rim Light
A hair light or rim light is a small light pointing down and behind the talent to give highlights off of the hair and shoulders.

SCHEDULE

Day One

We will show a clip from the evening news of an anchor in a newsroom, show a clip using only the camera light and, if possible, show a clip using natural light (an outdoor scene). Ask students if they notice a difference between the lighting.

Take-Home Assignment, Day One

You will watch any news broadcast you choose and list the forms of lighting used (to the best of their knowledge). You will write how the lighting affects the look and feel of the news set and discuss what types of lighting are used in on-location shoots. What impact, if any, did you feel the lighting had on the story? This will be due next class period and can be used as a grade.

Day One and Two

You will learn how to set-up three-point lighting and demonstrate the different types of lighting (natural light, camera light and diffusion). Learn the different types of lighting, how lighting is used, as well as how it affects talent and the scene.

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Day Two
After learning and showing examples of three-point lighting, you will divide into groups of three to four and set up the three-point lighting technique.

Days One through Three
Divided into groups, you will learn how to light a set with three-point lighting. You will divide into groups of three or four and experiment with different lighting techniques. Each group will shoot footage using natural lighting (no camera light), shoot a scene with only the camera light and shoot a scene with diffused lighting using any technique you choose (paper, diffusion paper, a stocking). The scene footage will stay the same and each group will analyze the differences in lighting. What works? What doesn't work? What mood does the lighting convey? You will comment on the lighting work for each shoot. What was good about the lighting? What could be improved?

Lesson 3 – Week 2, Week 3 – Days 9, 10, 11

EFFECTIVE AUDIO

In this lesson, you will learn the importance of good audio in a live broadcast, as well as understand the use of different types of microphones. Any type of microphone will plug into TriCaster® four audio inputs. Once the microphones are plugged into TriCaster®, look at the meters on TriCaster®, adjusting volume levels on each channel until they are close to zero. Going above zero may cause distortion in the audio.

Three Styles of Microphone:

Handheld Microphone

A handheld microphone is designed to be held in the talent's hand. This can be wireless or hard wired, depending on the type. When doing an interview, the microphone should be held in front of the talent's mouth.

Lavaliere Microphone (pin mic)

A lavaliere microphone is a discreet wireless or hard-wired microphone designed for the talent to wear by pinning the microphone on an article of their clothing. The microphone should be placed in the center of the talent's chest for the best sound. If using a hard-wired lavaliere, make sure to hide the wires out of the camera's eye. When using a wireless, be sure to hide the transmitter. The transmitter is usually pinned on the back of the talent's pants or skirt.

Boom Microphone

The boom is a movable, adjustable arm that acts as support for the talent's microphone when broadcasting. The purpose of the boom is to keep the microphone above, centered and in front of the

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talent while staying out of the camera's range. The boom can move forward, backward, or sideways and can be moved up or down. When raising or lowering the boom, the terms used are: "boom up" or "boom down."

SCHEDULE

Day One
Read the 'Lesson Three Handout'. Learn the importance of good audio in a live broadcast and learn how to achieve this by effectively using different types of microphones and adjusting audio levels using TriCaster® audio inputs and features.

Day One and Two
You will see examples of good and bad audio, and we will show you the different types of microphones and how and when they are used. Then the class will learn how audio is used in TriCaster®; how to adjust audio levels to achieve the right sound and how audio levels can be distorted to produce bad audio.

Day Two
Student groups, or as a class, you will demonstrate your understanding of microphones and audio levels by using the audio features on TriCaster®. Students will take turns using the microphones and adjusting audio levels in TriCaster®, while recording audio so that you can listen to the outcome and compare.

Day One through Three
As a group, students will learn the importance of audio by listening to good and bad audio examples.

Day One through Three
Students will divide into groups of three or four and experiment with different microphones and audio features on TriCaster®. Student groups will take turns recording audio into TriCaster® with different microphones, as well as experiment with audio levels (distortion versus good audio levels) and compare.

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Lesson 4 – Week 3, Week 4 – Days 12, 13, 14, 15, 16

LIVE MATTE (Chroma Key, Green Screen)

In this lesson students will learn to use keying effectively and apply chromakey to a live broadcast. Although there are many uses for chromakeying, TV Stations tend to use keying mostly when reporting the weather. Students will also learn what works and what doesn't work when using the LiveMatte™ feature (frizzy hair, for example, does not work well with keying).

Additionally, students will understand the process of producing a live segment for their broadcast. Students will divide into groups and produce a segment, assigning each group member different tasks (script writing, camera operators and technical director) and perform the segment live in front of the class.

The recipe for a perfect key is to point the cameras directly at the chroma wall/screen. Light the wall first, then bring in your talent and light them. The goal is to achieve even light (one of the biggest mistakes when keying is to over-light the set). Have students stand at least four feet in front of the chroma wall/screen and light them as you normally would with three-point lighting (See Lesson two). To avoid shadows on the chroma wall/screen, it is imperative students stand at least four feet from the wall/screen. Once students are in front of the wall/screen, adjust the tolerance in the LiveMatte™ TriCaster® function to where the student's body is solid (not transparent). By adjusting the tolerance (also known as 'clip level'), you can achieve a cleaner key.

You will learn and understand LiveMatte™ and how this feature works with TriCaster®. You will also learn how to convert web images into JPEGS. You will also learn using a Scan Converter with TriCaster® (see NDI® Tools Guide for info on Scan Converter – this is a program that allows your laptop to be assigned as a switcher source across the network).

SCHEDULE

Day One
Show a local news weather segment and ask the class if anyone knows how the information is displayed behind the weather person. We will explain to students the function of keying and what it's used for. Below is a link with more information: http://en.wikipedia.org/wiki/Chroma_key Input.

Day Two and Three
As a class, students will begin to experiment with keying on TriCaster®. Students will take turns on

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TriCaster® while other students provide examples of what works and what doesn't work against the chroma wall/screen. Examples should include: What doesn't work: Frizzy hair, clothing similar in color as the chroma wall/screen and bad lighting. What does work: Smooth hair, contrasting clothing against the chroma wall/screen Explain to students how to achieve good keying.

Day One and Two

Provide examples during all activities (showing students how to obtain the weather graphics, how to convert them to JPEG and input them into TriCaster®), as well as show students how to operate TriCaster® LiveMatte™ function

Day One

In groups of five or more (if the class is small, two groups will be sufficient), students will visit the NOAA (National Oceanic and Atmospheric Association) Web site and download weather pertaining to their assigned area (assign a specific area for each group or each student group can choose their area). Students should save the weather graphics as a JPEG which can then be copied into the TriCaster® graphics bin. Be sure that the students gather forecast information and satellite information. http://www.noaa.gov/

Day Two

Students will take the information they gathered and input the information into TriCaster®. Students can begin to experiment with TriCaster® lower-thirds feature. For example, a student can write the name of the weather person using one of more than 200 premade lower-third styles.

Day Two and Three

Students will begin experimenting in front of the chroma screen. As a point of reference, here is a live weather presentation by Dave Sweeney using TriCaster®: http://blog.oregonlive.com/davesweeney/

At this time, students can experiment with what works and what doesn't. For example, someone with big or frizzy hair, or a student with the same color of clothes as the chroma wall/screen would not create a good key. A monitor or television will be placed off to the side of the weather wall, so the student can turn to see the TriCaster® output and where they are in relation to the map behind them. Initially, this will be disorienting, as it is not a mirror image, but a projected image. So, facing the camera and raising their right hand will see the hand go up on the left side of the screen.

After experimenting with keying, student groups begin to write a one-minute weather script. Student groups will designate a director, a weather person, a camera operator, and a technical director (to call for titles and cue the talent). Show an example of a news weather cast and have student groups model their scripts after the weather segment.

Day Four and Five

Student groups will present their weather report live to the class. Students will be expected to use lower thirds and transitions. They will also use Scan Converter to send source material into TriCaster® from various websites.

Day Four and Five

Student groups will present their weather reports live to the class. Student groups will demonstrate their knowledge by presenting the weather report in a timely fashion (no more than one to two minutes) and use of TriCaster® (switching, lower-thirds and transition abilities). Students will also demonstrate their ability to work together as a team.

Lesson 5 – Week 4, Week 5 – Days 17, 18, 19, 20, 21

PRODUCTION TITLING & GRAPHICS

Day One

In this lesson, students will learn the importance of re-enforcing the spoken word with key points and learn to identify with names and titles. In the fast, concise format of news and documentary reporting, titles are digital on-screen graphics that serve several critical functions. Titles allow main themes to be transmitted without employing narrative and provide visual back-up to the spoken word. Alternately, titles can convey important information that is not otherwise mentioned, such as the names of subjects or the full titles of these subjects while they speak. Additionally, students will understand the different types of titles used in television production and when it is appropriate to use each type of title.

Title Page

A title page is the traditional reference to the text graphics that appear in a video production. This term can be interchanged with "super". Super is shorthand for superimpose. Most of the page containing the title is transparent and the text itself is a graphic layered on top, or superimposed over, the video being shown.

Is it Safe? Creating video titles are distinctly different than titles for display on a computer screen because of the variability of the image placement in the television tube. A margin of error must be added for television displays, as there is great difference where a particular screen 'edge' occurs from one model to the next. For this reason, when creating titles there are two different bounding boxes in the main display. The outer boundary is called **action safe**, and is the minimal area of coverage. If you are using a full-screen background or graphic, it must be at least this large. The inner boundary is called **title safe** and any text to be displayed must be within this region. This 20 percent safety margin ensures that older tube televisions won't have words going off the edge of the screen. All templates available in LiveText follow these rules.

The Four Types of Titles and When to Use Them:

Full Page

This title occupies the entire screen with text, usually centered. This is used for the opening of a show or when there are several key facts to present. Full page titles can either be text on top of a graphic, or text

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with video in the background. If there are several facts to be presented at once, it may appear as several bullet points on screen.

Bullet Build

In order to keep the audience from reading ahead, it is a common practice to create a 'bullet build'. For a three-point page of text, you create the whole page, and duplicate it twice. Then page one has bullets two and three deleted, and page two has bullet three deleted. You now have a series of pages, bringing

Lower Third

This title type is named for its placement on the screen, toward the bottom of the frame. This is used to identify people who are speaking onscreen and is positioned so that their name and title appears below their chin. While the title templates in TriCaster® are properly positioned, it is important to place your own custom titles for your show within the title safe boundary. Variations of this theme include left and right-side bars, which still leave the majority of the video screen unobstructed.

Crawl

This type of title displays full sentences when you want to keep your main screen visible. Text crawls across the bottom of the screen that is slow enough for the audience to read. This is commonly seen when there is a local weather warning with specifics about a storm and its direction of movement. With a crawl, the show can continue uninterrupted while secondary information passes along the bottom. TriCaster® can display crawls in a live production by creating the text in integrated LiveText, and then sending to the session.

Scroll

This title type is what you generally find with a show's closing credits, to display the names of everyone who helped produce the show. This slowly scrolls from bottom to top at a speed that is easy for the audience to read along. It may display over a graphic or a simple black background. Scrolls can also be created and displayed during live shows using integrated LiveText.

Bug

Though not really a title type, this is worth mentioning as it is available as a template type in the graphics bin. This is where you insert a small graphic into the corner of the screen, such as your TV's station logo. Bugs became prominent with the proliferation of cable television, so broadcasters could brand their shows and remind viewers what channel they were watching. For your own shows, this can be used to help the student body differentiate between different programs you produce.

Day One

In groups of five or more (if the class is small, two groups will be sufficient), students will visit an online news streaming website such as MSNBC (http://tv.msnbc.com). Watch several reports and note the use of titles and what type of titles are used. Keep in mind this observation applies not only to the news reports but to the graphics in the lead-in advertising. Have students take turns watching a report you have chosen on the site, preferably with some statistics or full-page titles involved. You will likely find that by both hearing and seeing you will retain more facts from the story than those just listened. We will discuss the possible impact of hearing a person's name and also seeing that name.

Day One and Two

Provide examples during all activities. Learn how to generate titles in LiveText, how to convert logos to .png format and then input these into TriCaster® for use as bugs, as well as learn how to cut or fade titles on and off screen during a live show. Since you will be taking a "hands-on" approach, you will be

able to assess if you understand the lesson. Students in their groups will work together to create their own titles; work with TriCaster® GFX tab, displaying lower-thirds and full pages of text.

Day Two
Students will take the information they gathered and generate title template pages for a live production. Students can begin to experiment with TriCaster® lower-thirds feature. For example, a student can place the name of the weather person using one of the dozens of pre-made lower-third styles.

Day Two and Three
As a class, students will begin to experiment with titles. You will take turns on TriCaster®, while other students provide examples of what works and what doesn't work, including coordination with camera operators to leave sufficient framing to include titles on tight head shots.

Day Two and Three
Students will storyboard a short newscast about a current topic, but instead of using on-camera reporting or stand-ups, they must rely on titles to convey themes, questions and transitions. Students must include at least one title of each type – full page, lower third, scroll and crawl.

Day Four and Five
Student groups will present their titles live to the class. Student groups will demonstrate their knowledge by presenting their titles in a timely fashion (no more than one to two minutes) and use of transitioning lower thirds on and off the screen. Students will also demonstrate their ability to work together as a team.

Lesson 6 – Week 5 – Days 22, 23, 24, 25

CREW ASSIGNMENTS AND OPERATIONS

Crew assignments and operation are imperative to a smooth-running broadcast and production crew. Therefore, students must know each assignment definition and its responsibilities. While a student can be assigned to a specific task, it is preferable to rotate throughout the semester, enabling each of you to experience each role. This is an excellent opportunity for you to essentially "cross-train". There are several crew assignments and job descriptions in a typical production.

The Daily Segment Producer is responsible for the production. He/she is responsible for the entire production crew and coordinating technical and non- technical production elements of the broadcast. The daily segment producer is also responsible for gathering and assigning stories.

The Line Producer is responsible for producing the program, overseeing studio preparation, equipment, on-air broadcast, including talent direction, and studio clean-up post-broadcast. The line producer is also responsible for overseeing the run-through, or pre-show, ensuring the script is smooth and talent are polished.

The Talents responsibilities include preparing the broadcast script around stories and features (with the direction from the assigned producer) and ensuring a professional, on-air broadcast. Good posture, clear speaking and pace are very important aspects to consider. It is the talents job to engage the audience.

The Director is responsible for directing all aspects of the broadcast, including the technical director and camera operators, ensuring both receive direction on switching cameras and count-downs.

The Technical Director takes direction from the director, the technical director operates the switcher panel during the live broadcast, including punching, switching and fades, as well as ensures all clips for the day's broadcast are loaded and cued.

The Camera Person(s) are responsible for camera operation during the broadcast, the camera person(s) should make sure all cameras are operational before the broadcast (white- balanced, on the tripod, all wiring is correct, and the video is being seen by TriCaster®.) The camera operator should go through the broadcast run-through, familiarizing him/herself with the schedule and plan.

The Character Generator Operator creates all text pages (for example, credits), lower thirds and overlays before the broadcast. He/ she will also ensure all still pictures are available and cued for broadcast.

The Audio Engineer makes sure the sound board is on, working properly and the audio is registering on the meters. The audio engineer is also responsible for microphones and assures that all on-air broadcast participants can be heard. Additionally, the audio engineer chooses the music for each broadcast.

Script Editors are responsible for ensuring the script is well-written, grammatically correct, and factually accurate. If corrections need to be made, or problems are evident, it's the script editor's job to correct the information.

The Sports Producer gathers scores from relevant games, provides the scores, results, game footage, interviews, etc. to the producer and character generator operator.

The Reporter's main responsibility is to gather information for stories and features for the broadcast. This is done by interviews, press releases, public records, and other sources. Splitting his/her time

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between working with the production crew and going on field assignments, they compile, write and sometimes edit the material.

The Stage Manager or Floor Director is responsible for ensuring the set is ready each day for broadcast, including set design, dressing the set for appropriate events, and making sure the overall appearance of the set is broadcast ready. The floor director also signals to on-camera talent which camera is active and how much time is remaining in each story or segment.

Day Four
Students will present their research to the class as a presentation.

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LESSON 1 HANDOUT

LIGHTS, CAMERA, ACTION:

Basic Camera Composition:

Long Shot

A long shot, also referred to as an establishing shot, is used to show a large view of something. Often used to show location, buildings or a large group of people, long shots are what to use to establish a setting.

Medium Shot

A medium shot is used to focus the audience's attention by cutting out unwanted people, objects or background and focusing on the subject.

Two-Shot

A two-shot is used when there are two people in the shot and the camera zooms back wide enough to include each person in the frame.

Close-Up

Shot A close-up shot is used to isolate what is important in the shot or enlarge something in order to focus the audience's attention.

Extreme Close-Up Shot

An extreme-close up shot is used to further isolate or enlarge an object in order to focus the audience's attention.

Over-the-Shoulder Shot

The over-the-shoulder shot is used to show a close-up of the speaker on one side of the frame and a text or video window on the other side, over the anchor's shoulder.

Subjective Views

A subjective view is used to create the effect that the anchor is speaking directly with the audience by having the person speak into the camera.

Objective View

An objective view is when the camera is not addressed directly by those in the shot in order to make the audience feel like an observer and not a participant. This shot is often used during an interview.

Eye-Level View

An eye level view is when the camera is set at eye level with the anchor in the shot.

High-Angle View

A high-angle view involves the camera being placed higher than eye-level, looking down at the talent.

Low-Angle View

This shot involves the camera looking up towards the talent, giving the audience the impression that the talent is in a position of power.

Rule of Thirds

The Rule of Thirds states that an image can be divided into nine equal parts by dividing it with two equally spaced horizontal lines and two equally spaced vertical lines. The four points formed by the

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intersections of these lines are where the human eye directs its attention. To create video with good composition, place the most important part of the picture at one of the four points.

Headroom
Headroom refers to the space above the talent's head. If there is too much or too little headroom, the talent will look unbalanced, cramped or both.

Lead Room
This simply allows space for someone or something to move, for example, a moving person or a car. Leave space for them in the direction they are moving rather than crowding the side of a screen.

Background
The backdrop behind the talent can either enhance or detract from the shot. It is important to take the background into consideration as the shot is framed to make sure that no object in the background looks as though it is intruding upon the image in focus. For example, a pole or a sign in the background could look as though it is protruding from the head of the talent if the shot is not framed properly.

Foreground
The same principle for background can be used for foreground. Always be aware of what is in front of the talent.

Balance
While you want to provide lead room in the frame in the direction that someone is facing, if you provide too much room, the shot will lose balance. If the subject is facing right, you should place them just to the left of center.

Pan
A pan is when you rotate the camera on the horizontal.

Zoom
Changing the lens to a narrow-angle position (zoom-in, or close-up), or to a wide- angle position (zoom-out).

Slow Zoom
While the subject is speaking, very slowly zooming in adds impact to what is being said. This is a great technique to use when the talent is closing a report.

Tilt
Tilt is when you rotate the camera up or down.

Truck
Truck is when you move the camera laterally using a camera dolly or pedestal.

Dolly
A dolly provides support for the camera, which allows the camera to move in all directions, such as a tripod on wheels. To move the camera toward something is called "dolly in," moving the camera away from something is called "dolly out."

LESSON 2 HANDOUT

LIGHTING A SET:

In this lesson, students will learn how to effectively light a set, as well as use natural light and single camera lighting. Students will also learn the different types of lighting, including three-point lighting, which will be utilized on the news set.

Three-point Lighting
Three-point lighting is a combination of key, fill and hair lights on the talent. The fill light should be about half the intensity of the key light, to emphasize facial dimension.

Key Light
A key light is the main light in front of and to one side of the talent.

Fill Light
A fill light is a less bright light off to the opposite side of the key light.

Hair Light/Rim Light
A hair light or rim light is a small light pointing down and behind the talent to give highlights off the hair and shoulders.

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LESSON 3 HANDOUT

EFFECTIVE AUDIO:

Any type of microphone will plug into TriCaster® four audio inputs. Once the microphones are plugged in, look at the meters on TriCaster®, adjusting volume levels on each channel until they are close to zero. Going above zero will cause distortion in the audio.

Three Styles of Microphone:

Handheld Microphone

A handheld microphone is designed to be held in the talent's hand. This can be wireless or hard wired, depending on the type. When doing an interview, the microphone should be held in front of the talent's mouth.

Lavaliere Microphone (pin mic)

A lavaliere microphone is a discreet wireless or hard-wired microphone designed for the talent to wear by pinning the microphone on an article of their clothing. The microphone should be placed in the center of the talent's chest for the best sound. If using a hardwired lavaliere, make sure to hide the wires out of the camera's eye. When using a wireless, be sure to hide the transmitter. The transmitter is usually pinned on the back of the talent's pants or skirt.

Boom Microphone

The boom is a movable, adjustable arm that acts as support for the talent's microphone when broadcasting. The purpose of the boom is to keep the microphone above, centered and in front of the talent while staying out of the camera's range. The boom is able to move forward, backward or sideways and can be moved up or down. When raising or lowering the boom, the terms used are: "boom up" or "boom down."

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LESSON 5 HANDOUT

PRODUCTION TITLING:

Two Common Title References:

Title Page
A title page is the traditional reference to the text graphics that appear in a video production. This term can be interchanged with "super." Super (Superimpose) Super is shorthand for superimpose. Most of the page containing the title is transparent and the text itself is a graphic layered on top, or superimposed over, the video being shown.

Is it Safe?
Creating video titles are distinctly different than titles for display on a computer screen because of the variability of the image placement in the television tube. A margin of error must be added for television displays, as there is great difference where a particular screen 'edge' occurs from one model to the next. For this reason, when creating titles, there are two different bounding boxes in the main display. The outer boundary is called action safe and is the minimal area of coverage. If you are using a full-screen background or graphic, it must be at least this large. The inner boundary is called title safe and any text to be displayed must be within this region. This 20 percent safety margin ensures that older tube televisions won't have words going off the edge of the screen. All templates available in LiveText follow these rules.

The Four Types of Titles and When to Use Them:

Full Page
This title occupies the entire screen with text usually centered. This is used for the opening of a show or when there are several key facts to present. Full page titles can either be text on top of a graphic, or text with video in the background. If there are several facts to be presented at once, it may appear as several bullet points on screen.

Bullet Build
In order to keep the audience from reading ahead, it is a common practice to create a 'bullet build'. For a three-point page of text, you create the whole page, and duplicate it twice. Then page one has bullets two and three deleted, and page two has bullet three deleted. You now have a series of pages, bringing up each point as the talent or narrator begins speaking about that point.

Lower Third
This title type is named for its placement on the screen, toward the bottom of the frame. This is used to identify people who are speaking onscreen and is positioned so that their name and title appears below their chin. While the title templates in TriCaster® are properly positioned, it is important to place your own custom titles for your show within the title safe boundary. Variations of this theme include left and right-side bars, which still leave most of the video screen unobstructed.

Crawl
This type of title displays full sentences when you want to keep your main screen visible. Text crawls across the bottom of the screen that is slow enough for the audience to read (usually left-to-right). This is commonly seen when there is a local weather warning with specifics about a storm and its direction of movement. With a crawl, the show can continue uninterrupted while secondary information passes

along the bottom. TriCaster® can display crawls in a live production by creating the and then sending it to the session.

Scroll

This title type is what you generally find with a show's closing credits, to display the names of everyone who helped produce the show. This slowly scrolls from bottom to top at a speed that is easy for the audience to read along. It may display over a graphic or a simple black background. Scrolls can also be created and displayed during live shows using integrated LiveText.

Bug

Though not really a title type, this is worth mentioning, as it is available as a template type in the graphics bin. This is where you insert a small graphic into the corner of the screen, such as your TV's station logo. Bugs became prominent with the proliferation of cable television, so broadcasters could brand their shows and remind viewers what channel they were watching.

LESSON 6 HANDOUT

CREW ASSIGNMENT AND OPERATIONS

Daily Segment Producer

The daily segment producer is responsible for the newscast production. He/she is responsible for the entire production crew and coordinating technical and non- technical production elements of the broadcast. The daily news producer is also responsible for gathering and assigning projects.

The Line Producer is responsible for producing the program, overseeing studio preparation, equipment, on-air broadcast, including talent direction, and studio clean-up post-broadcast. The line producer is also responsible for overseeing the run-through, or pre-show, ensuring the script is smooth and talent are polished.

The Talents responsibilities include preparing the broadcast script around stories and features (with the direction from the assigned producer) and ensuring a professional, on-air broadcast. Good posture, clear speaking and pace are very important aspects to consider. It is the talents job to engage the audience.

The Director is responsible for directing all aspects of the broadcast, including the technical director and camera operators, ensuring both receive direction on switching cameras and count-downs.

The Technical Director takes direction from the director, the technical director operates the switcher panel during the live broadcast, including punching, switching and fades, as well as ensures all clips for the day's broadcast are loaded and cued.

The Camera Person(s) are responsible for camera operation during the broadcast, the camera person(s) should make sure all cameras are operational before the broadcast (white- balanced, on the tripod, all wiring is correct, and the video is being seen by TriCaster®.) The camera operator should go through the broadcast run-through, familiarizing him/herself with the schedule and plan.

The Character Generator Operator creates all text pages (for example, credits), lower thirds and overlays before the broadcast. He/ she will also ensure all still pictures are available and cued for broadcast.

The Audio Engineer makes sure the sound board is on, working properly and the audio is registering on the meters. The audio engineer is also responsible for microphones and assures that all on-air broadcast participants can be heard. Additionally, the audio engineer chooses the music for each broadcast.

Script Editors are responsible for ensuring the script is well-written, grammatically correct, and factually accurate. If corrections need to be made, or problems are evident, it's the script editor's job to correct the information.

The Sports Producer gathers scores from relevant games, provides the scores, results, game footage, interviews, etc. to the producer and character generator operator.

The Reporter's main responsibility is to gather information for stories and features for the broadcast. This is done by interviews, press releases, public records, and other sources. Splitting his/her time between working with the production crew and going on field assignments, they compile, write and sometimes edit the material.

The Stage Manager or Floor Director is responsible for ensuring the set is ready each day for broadcast, including set design, dressing the set for appropriate events, and making sure the overall appearance of

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the set is broadcast ready. The floor director also signals to on-camera talent which camera is active and how much time is remaining in each story or segment.

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